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(54) MANUFACTURE OF DOUBLE SURFACE CONDUCTOR POLYIMIDE LAMINATE

(57)Abstract:
PURPOSE: To obtain a double surface conductor polyimide laminate by laminating a conductive metal layer on the opposite surfaces of the polyimide resin layer without intervening an adhesive layer.
CONSTITUTION: A precursor capable of conversion to a polyimide resin solution or polyimide resin is applied on a conductive metal foil M1 and heat-treated. A conductive metal foil M2 is superimposed on the resin of the laminate, and heated and pressurized to complete the process. The polyimide resin includes at least one kind of thermoexpandable polyimide resin and a thermoplastic resin layer is then laminated on the uppermost surface layer, and when the ratio of the thicknesses of the lower layer/surface layer is selected to be 5-20, satisfactory thermocompression bonding with satisfactory bonding force and no producing warpage is ensured. Polymer concentration of the precursor solution may be of 10-20% by weight. The heat-treatment of the resin layer is done 300-400°C into 10-150μm thickness. For heat press with the superimposed metal foils M2, use of vacuum hydropress can prevent the metal foils M1, M2 from being oxidized.

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